VA Software Assurance

Office of Information Security

Secure Coding Tips

Tip: Error Handling Coding Errors Can Lead To Vulnerabilities

This week's Secure Coding Tip is about how making error handling types of coding errors[1] can introduce vulnerabilities into VA applications. Scanning source code to perform code review is an authorization requirement included in the Technical / Testing Requirements of the OCS Accreditation Requirements Guide / SOP [2], and enforced as part of the ATO issuance process.[3]

This type of vulnerability has to do with issues related to the handling of errors in code. An example is ignoring exceptions and other error conditions which may then allow an attacker to induce unexpected behavior unnoticed.[4] Error handling coding errors such as these are errors that the HP Fortify Static Code Analyzer (SCA) can detect.

Read more...

- [1] MITRE Common Weakness Enumeration (CWE) CWE-388: Error Handling
- [2] "Accreditation Requirements Guide / Standard Operating Procedures", Office of Cyber Security (OCS) Assessment and Authorization intranet site.
- [3] "Accreditation Requirements Expectation Memorandum" (Section 2.a.ii "Code Review"), VA Chief Information Security Officer (CISO) Stanley F. Lowe, March 19, 2014.
- [4] MITRE Common Weakness Enumeration (CWE) CWE-391: Unchecked Error Condition

More Information

For more information about the VA Software Assurance Program Office, please visit our website <u>here</u>.



Resources

VA Software Assurance Support Site

VA Code Review Standard Operating Procedures

<u>VA-Licensed Fortify Request</u> <u>Instructions</u>

<u>VA Software Assurance</u> <u>Frequently Asked Questions</u>

Training

VA Code Review Process

VA Fortify End User Course

VA Secure Coding Course